THE SIGNAL OFFICER AT NTC

EAGLE 30 - CPT STEVE RAMIREZ

COBRA 30 - CPT ANDREW BLISS

TARANTULA 30 - CPT JIM TURINETTI

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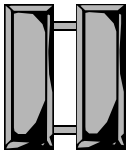
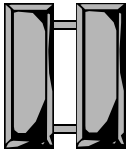
NTC SIGNAL TRAINERS

Sr Signal Trainer
Bronco 30

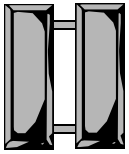


MSE Sig Co Trainer
Bronco 30A

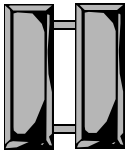
Commo Chief Trainer
Bronco 30B



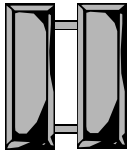
FA
TF Trainer
(Wolf 30)



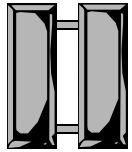
Armor/CAV
TF Trainer
(Cobra 30)



MECH
TF Trainer
(Scorpion 30)



Light ABN
TF Trainer
(Tarantula 30)



AVN
Bde/TF Trainer
(Eagle 30)

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PURPOSE

To inform the S6 Course on the trends and lessons learned at the National Training Center.

AGENDA

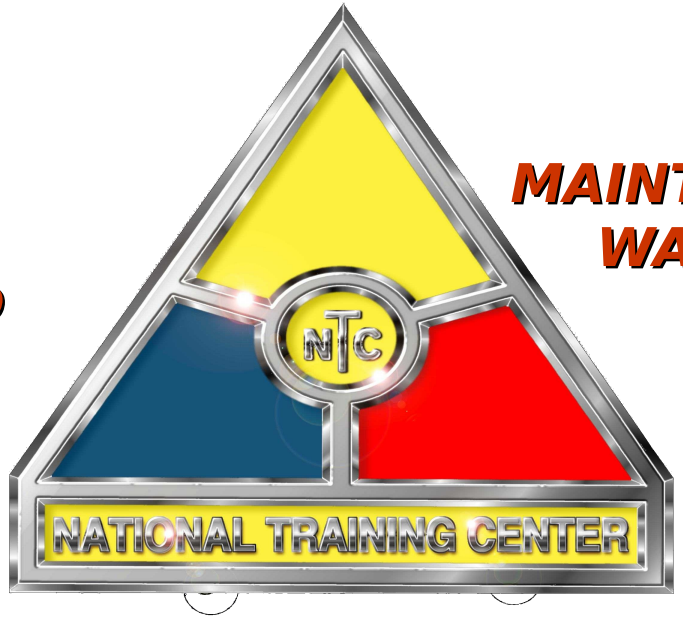
- What is the purpose of the NTC?
- How do we, as OCs, help accomplish the mission?
- Trends/Lessons Learned
  - MDMP
  - Signal Annex
  - Triggers
  - RETRANS
  - Echeloning C2 Nodes
  - Commo Chief Utilization
- Summary
- Questions/Conclusion

THE NATIONAL TRAINING CENTER

TRAIN HARD BUT SAFE

MAINTAIN OUR EQUIPMENT, SOLDIERS, AND DISCIPLINE

MAINTAIN A WINNING, WARRIOR SPIRIT



GET BETTER EACH DAY, MUCH BETTER BY THE END OF THE ROTATION

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MISSION

Coach, teach, mentor, and train Brigade/Battalion/Squadron S6 sections and supporting Signal companies during RSOI and through the planning, preparation, and execution of

continuous tactical operations. Provide feedback and

submit recommendations for improvement in the areas of doctrine, training, leader development, organization, and material systems.

TYPICAL ROTATION

- Brigade operations
- RSOI week (build combat power)
- SASO Missions
- Two weeks in the “BOX”
  - Force on Force
    - Movement to Contact
    - Defense in Sector
    - Deliberate Attack
    - Hasty Defense
  - Live Fire
- AARs

THE NATIONAL TRAINING CENTER
The best resourced training event in the United States Army.
55km
43km

FORT IRWIN
LAND BOUNDARY
NATIONAL TRAINING CENTER
See map page 104
Baltimore
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Arlington
Bethesda
Rockville
Wheaton
Silver Spr.
College Pk.
Hyattsville
Columbia
Montgomery Village
Germantown
Gaithersburg
Annapolis
Dundalk
Severn
Laurel
Greenbelt
Crofton
Bowie
Reston
Chantilly
Vienna
Fairfax
Falls Church
Suitland
Manassas
Woodbridge
Dale City
Dumfries
Triangle
Fredericksburg
Waldorf
St. Charles
Mattawoman
Accokeek
Bryans Road
Indian Head
White Plains
La Plata
Charlotte Hall
Golden Beach
Prince Frederick
Leonardtown
Colonial Beach
Damascus
Poolesville
Leesburg
Sterling
Herndon
Arcola
Manassas Park
Bristow
Nokesville
Occoquan
Lorton
Independent Hill
Haymarket
Gainesville
Broad Run Farms
Quince Orchard
Olney
Buttonsville
Aspen Hill
Potomac
Calverton
Odenton
Severna Park
Glen Burnie
Hale-thorpe
Essex
Rosedale
Randallstown
Lucketts
Woodlawn
Mt. Vernon
Fort Belvoir
Mason Neck S.P.
Gunston Hall
Leesylvania S.P.
Thomas Stone Nat'l. Hist. Site
Triadelphia Res.
Patuxent
Hill Clinton
Kettering
Londontown
Riva
Shadyside
Hillsmere Shores
Chesapeake & Ohio Canal Nat'l. Hist. Park
Nat'l. Bfld.
Nat'l. Cem.
Marine Corps Development Command
Prince William
Fairfax
Arpt.
Toll
Ellicott City

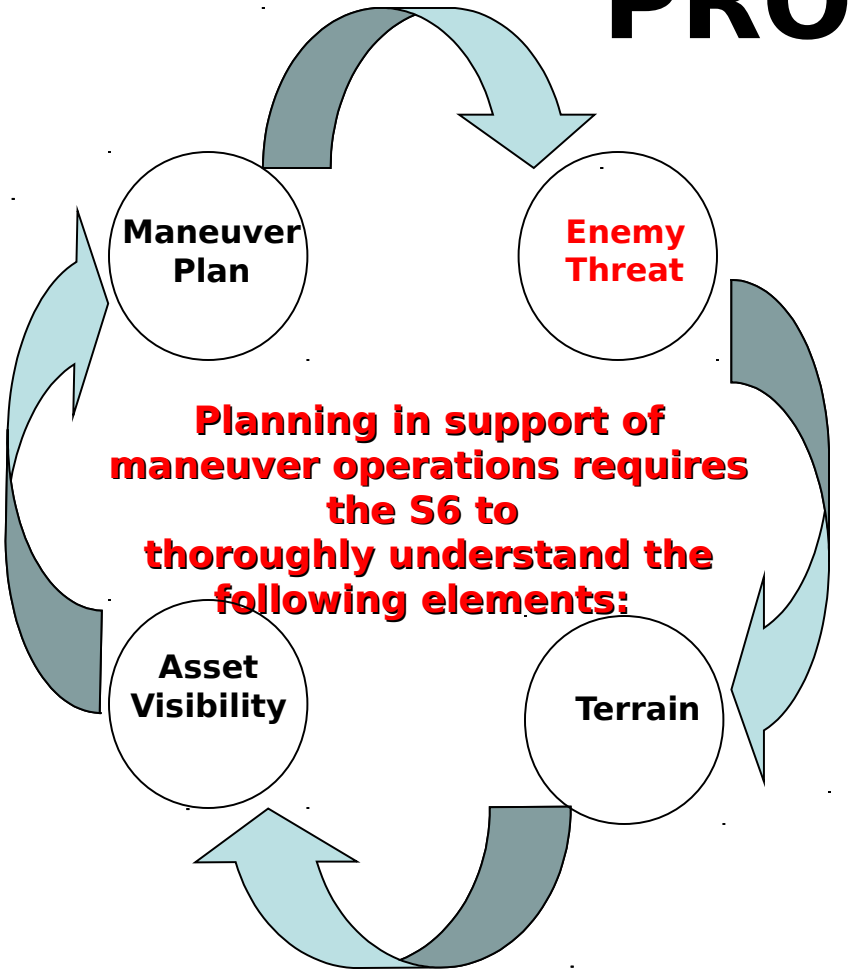
OCs Roles and Responsibilities

- Observers
  - Observe and analyze performance throughout planning, preparation and execution phases of all missions.
  - Doctrinal Knowledge
- Controllers
  - Apply battlefield effects, assess casualties and enforce the NTC ROE
  - Safety Awareness

TRENDS - MDMP

- Signal Planning Process – What is this?
- S6 Integration – Do we participate?
- Time Management – TLPs?
- Signal Tools – What are they?

THE SIGNAL PLANNING PROCESS


Maneuver Plan
Enemy Threat
Planning in support of maneuver operations requires the S6 to thoroughly understand the following elements:
Asset Visibility
Terrain

FM 11-43

Communications must be:

- Planned early and in detail for each phase of the operation (Counter-Recon, Defend, etc.)
- Planned for overwhelming success and catastrophic failure
- Planned and in the contingency plans
- Integrated and synchronized to support each part of an operation

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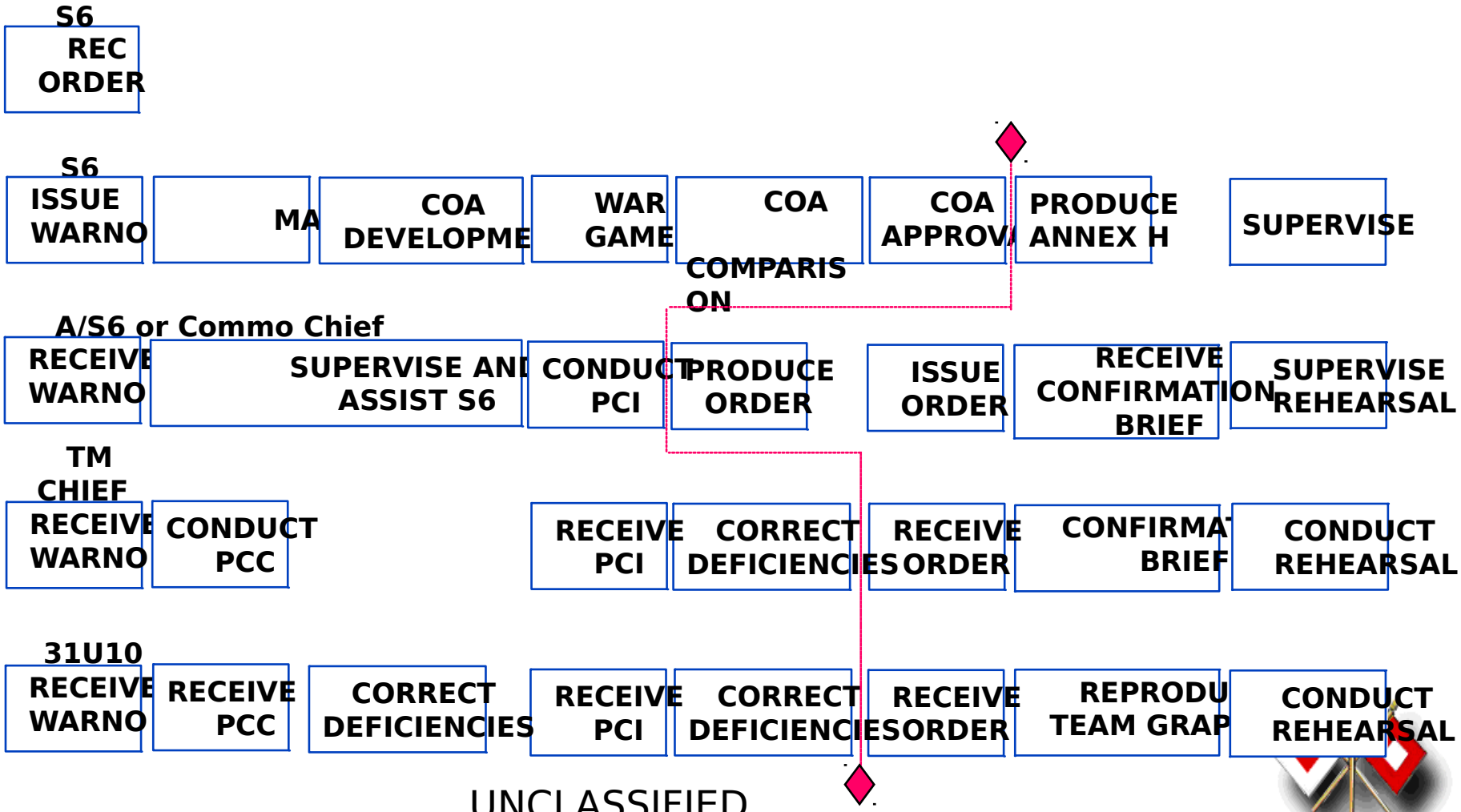
S6 PARTICIPATION IN MDMP

- Why must we participate?
  - We want our vote to count
  - We are responsible for the communications plan
- Mission Analysis/COA Development/War Game/Troop Leading Procedures
  - Must develop a communications plan to support the maneuver plan
  - TLPs for RETRANS during MDMP

TIME MANAGEMENT

TLP/PREP FOR COMBAT TIME MANAGEMENT "A WAY"



TROOP LEADING PROCEDURES

Receive the Mission	**Mission Analysis** **Purpose / Endstate** **Prioritize PCC/PCI** **Make Timeline**
Issue the Warning Order	**Mission** **PCC / PCI Priorities** **Timeline**
Make a Tentative Plan **Initiate Movement**	**IPB** **METT-T** **Rehearsal Plan**
Conduct Reconnaissance	**Route and Site** **Advance Party Operations**
Complete the Plan	**Site Diagram** **Security Plan** **Movement Plan**
Issue the Order	**5 Paragraph OPORD**
Supervise	**PCI** **Rehearsal** **Execution**

TROOP LEADING PROCEDURES

- **Time Line:**
  - What does a time line do for us?
  - How do we enforce a time line?
  - How do we establish priorities?

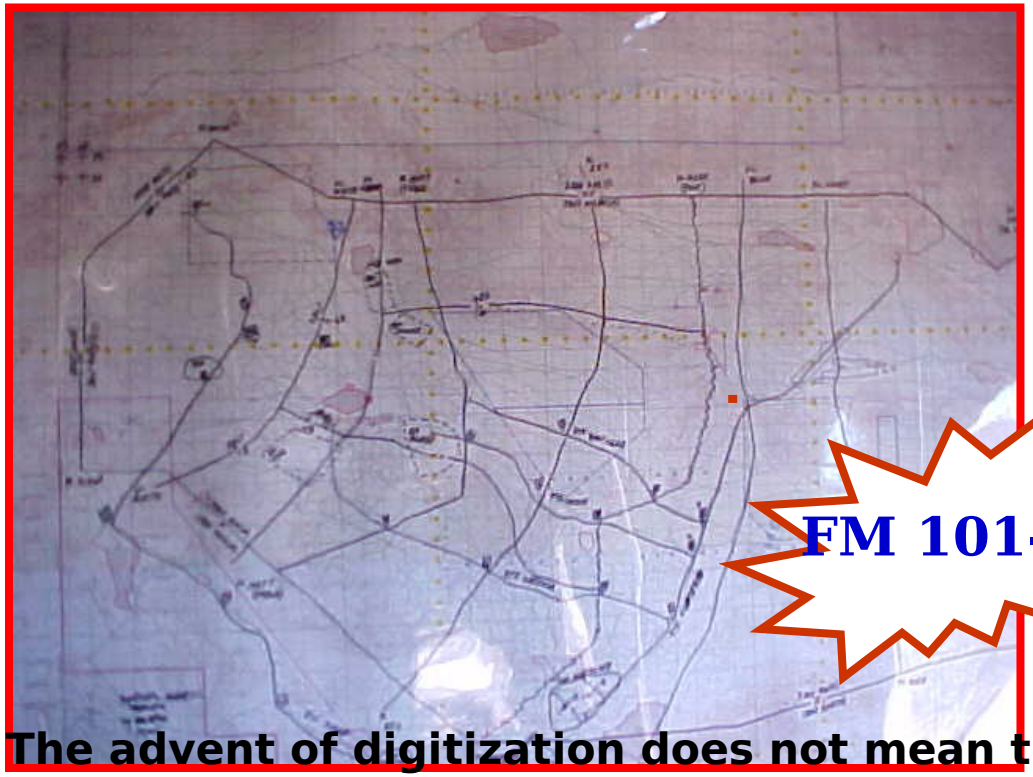
- **Time Management:**
  - 1/3 Planning 2/3 Preparation Rule
  - Timely distribution of OPORD and Graphics
  - TACLAN
  - Signal Company LNO Operations

- **Rehearsals:**

What type of rehearsals can a we do?

- Map Rehearsals
- Remote Team Rehearsals
- Sand Table Rehearsals
- LOS Link Rehearsals
- Troubleshooting Rehearsals
- Force Protection
  - NBC
  - QRF
  - Indirect Fire

BATTLE TRACKING



FM 101-5-1

Battle Graphics

Do we understand?:

- Phase Lines
- LD
- EA
- Corridors
- MSRs
- AXPs

The advent of digitization does not mean that acetate and maps have no use and will disappear, at least not in the near future. ***Maps still remain the best tool when maneuvering and fighting on the battlefield, or for controlling/tracking operations over a large area.*** **The combination of a map with digital SA and terrain database are ideal tools; both will be required and extensively used.**

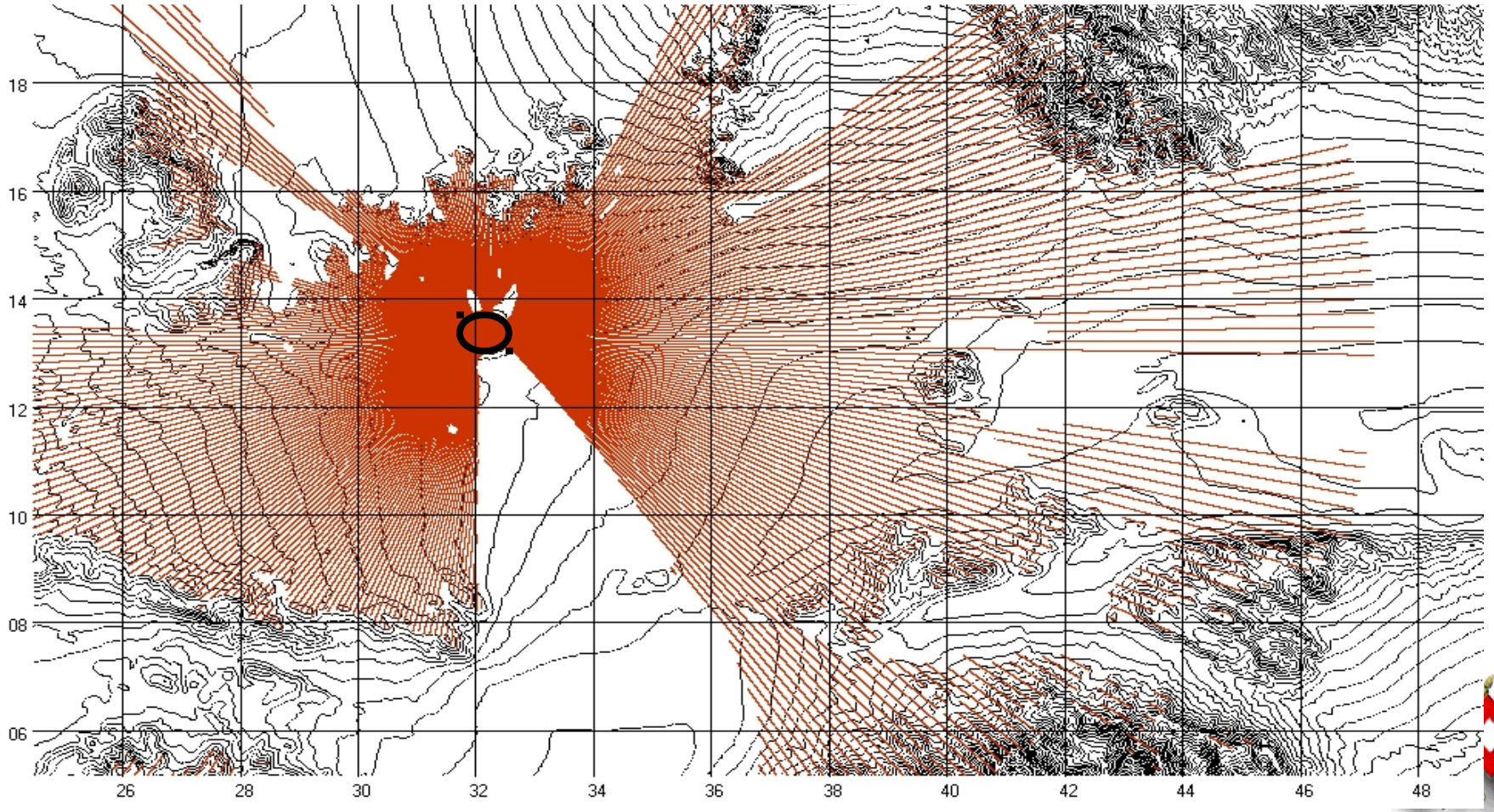
FKSM 71-2, 3-29

SIGNAL TOOLS FOR MDMP

- Map Board
- Graphics
- Brigade Order/Annex
- TERRABASE on *OWN* Computer
- ICONS for COA Development/War Game
  - Stick Pins
  - Micro Machines

TERRABASE LOS

CHECK COMMO – TERRABASE LOS FROM RETRANS



WARGAMING TOOLS CHECKLIST

Tool	Status
Maneuver Graphics	✓
Draft signal annex	X
Known Critical Events List	✓
C2 locations	✓
signal scheme graphics	✓
NFAs	X
SDZs	✓
MSE footprint	✓
List of Firendly Forces	✓
List of Assumptions	X
List limitations/deadspace	X
Cdr's Gudiance	X
Terrabase shots	X
Retrans locations	X

“ A technique”

TRENDS – SIGNAL ANNEX

- Do we write one?
- What goes in the Signal Annex?
  - Are tasks in the base order?
- What does the annex look like vs. Paragraph 5?

THE SIGNAL ANNEX

Annexes provide details not readily incorporated into the basic order and help keep the order's basic text short.

Paragraph 5 of the Base order (Command and Signal) contains minimal detail regarding the mission. The Signal Annex is the place in which the S6 puts as much executable detail into the OPORD as possible.

FM 101-5

A Technique:

There are two parts of an OPORD that are written by the S6. The first is paragraph 5 of the Base order (Command and Signal) which contains minimal detail regarding the mission. The second is the Signal Annex. The Signal Annex is the place in which the S6 puts as much executable detail into the OPORD as possible.

THE SIGNAL ANNEX

- **Elements that may be included in the Annex:**
  - **Net priorities by phase.**
  - **Additional information on CASEVAC, security and QRF for RETRANS; unit/section should be tasked in Paragraph III.**
  - **RETRANS link-up times, call signs.**
  - **Other Signal assets in AO. Is that enemy or the Signal Companies RAU?**
  - **RETRANS change over lines. Good place for a picture/diagram.**
  - **Reseed plan for loss of RETRANS. Who controls this asset?**
  - **Non-standard RETRANS assets link-up times and locations.**
  - **C2 Execution Matrix. TRIGGERS, TRIGGERS, TRIGGERS.**

COMMAND - CONTROL - COMMO

TF OPORD ANNEX H (SIGNAL) Paragraph 5 "A WAY"

Command and Control Locations:

BN TOC located NV 350086
BDE TOC located NV 41211046
BDE REAR located w/BSA at NV 6008

TASK TO SUB. UNITS:

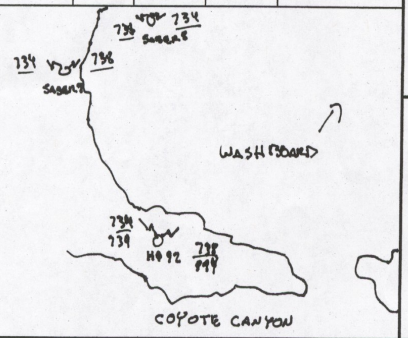
- SCOUTS : SABERS 7 AND 8 CONDUCT RETRANS AT THEIR OP SET. SABER 4 IS BACK UP TO 7 AND 8.

RETRANS, RAUs and NC LOCATIONS:

TEAM	GRID	SET TIME	NET ID	NET	TRIGGER
RTS 1	NV272 087	292[redacted]	734/739	738/894	LD FOR SABER
SABER 4	0/0	0/0	0/0	0/0	REPLACES SABER 7 OR 8 IF NEEDED
SABER 7	NV225 [illegible]5		738	734	OP 7 SET
SABER 8	NV 190 143		734	738	OP 8 SET

COORDINATING INSTRUCTIONS

1. Primary means of communications in order: (1)SINCGARS (2) MSE
2. RTS1 will deploy O/O.
3. Request for Frequency Changes will be coord. with BN SIGO
4. Units will operate SINCGARS radios in Freq hop, secure mode, w/ PLGR time.
5. Cue/Man Frequency and Sign / CS change over occurs daily [redacted] Local. 1700
6. SCOUTS PICK UP THIRD RETRANS CABLE AFTER TF REHEARSAL FROM SIGO.
7. CF2 RETRANS THRU HQ92.



COMMAND:

BN CDR w/ B Co.
S-3 w/ A Co.
BN XO w/ TOC.

RADIO LOAD DIAGRAM [redacted] FOR RETRANS

HQ 92	SABER 7	SABER 8	RADIO
738	734	738	← TOP
734	738	734	← BOTTOM

SIGNAL:

Current SOI and MSE phone directory are in effect. All BDE through Section level Net IDs are in the SOI.

NET ID's: CF2 : 739 → RETRANS : 894

BN CMD:734 — BN CMD RETRANS: 738
BN O/I: 735 — BN O/I RETRANS: N/A
BN A/L: 736 — BN A/L RETRANS:N/A
BDE CMD:700 — BDE CMD RETRANS: 706
BDE O/I : 701 — BDE O/I RETRANS: 787
BDE A/L: 702 — BDE A/L RETRANS: 788

ANTI-JAMMING Plan: Upon jamming of the TF CMD net, the code word GREY GHOST #1 will be used on CMD and O/I nets to direct which new net ID units will switch on. GREY GHOST #2 means to return to original frequency:
[redacted] CMD NET
BINGO #1 = 737

COMMAND:

COMMAND ELEMENT	LOC	ALT LOC	DISPL TRIGGER	OIC
CMD GRP				
TAC				
TOC				

SUCCESSION OF COMMAND:

SIGNAL:

RETRANS PLAN:

TEAM	NETS	LOC	ALT LOC	DISPL TRIGGER

ANTIJAM PLAN

EVENT	NET	FREQ/NET ID	1 ALT FREQ/NET ID	2 ALT FREQ/NET ID

TRENDS – TRIGGERS

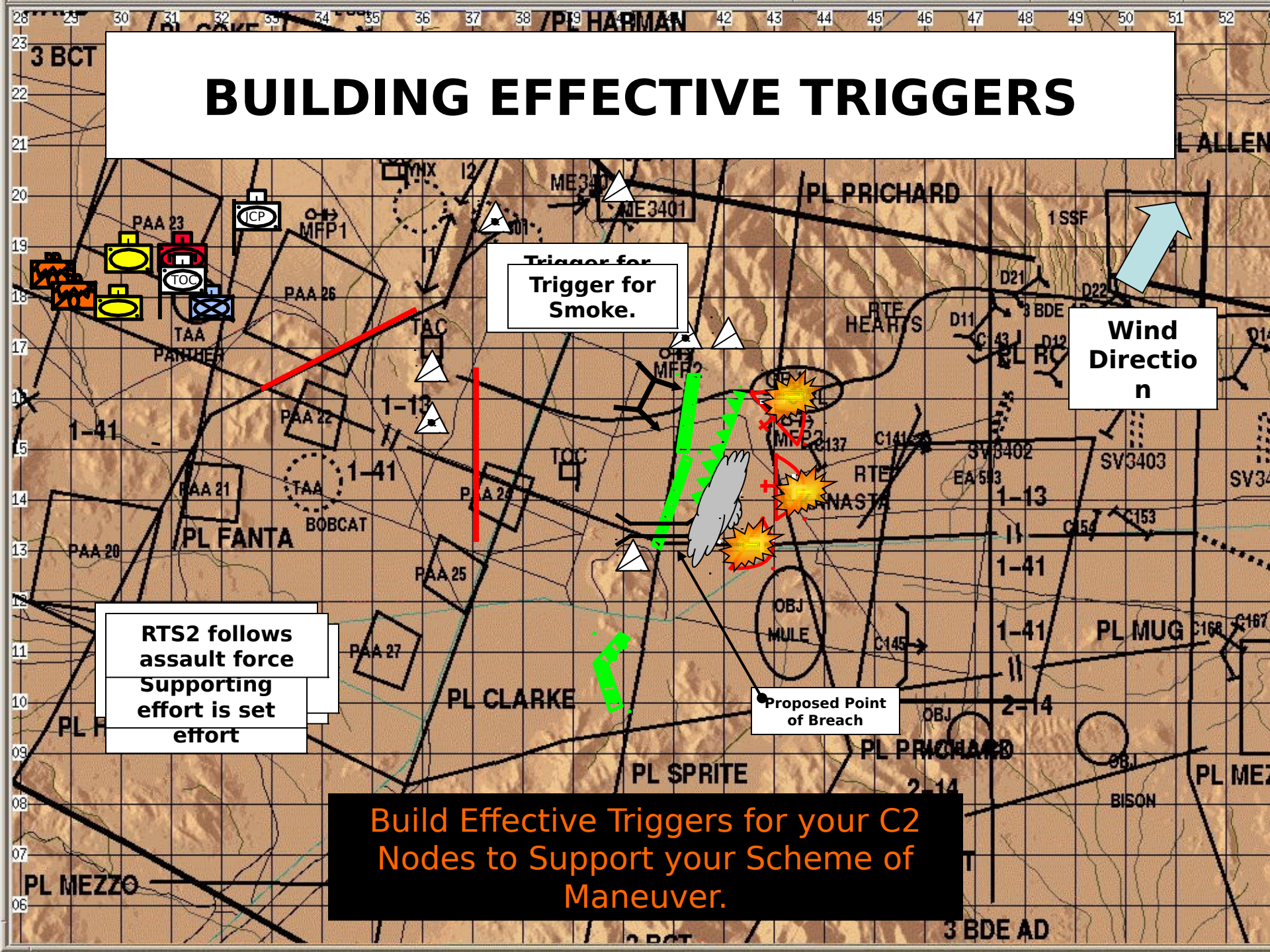
- What is a trigger?
- Why do we need to develop triggers?
- What do triggers do for us?
- When are triggers developed?

Loss of Comms is a BAD trigger!

C2 TRIGGERS

1. Clearly define the task and purpose for the C2 elements
2. Make your assumptions / determine planning factors
   a. Rates of movement
   b. Planned routes
   c. Probability of enemy contact
   d. Critical event
3. Calculate time / space required

BUILDING EFFECTIVE TRIGGERS

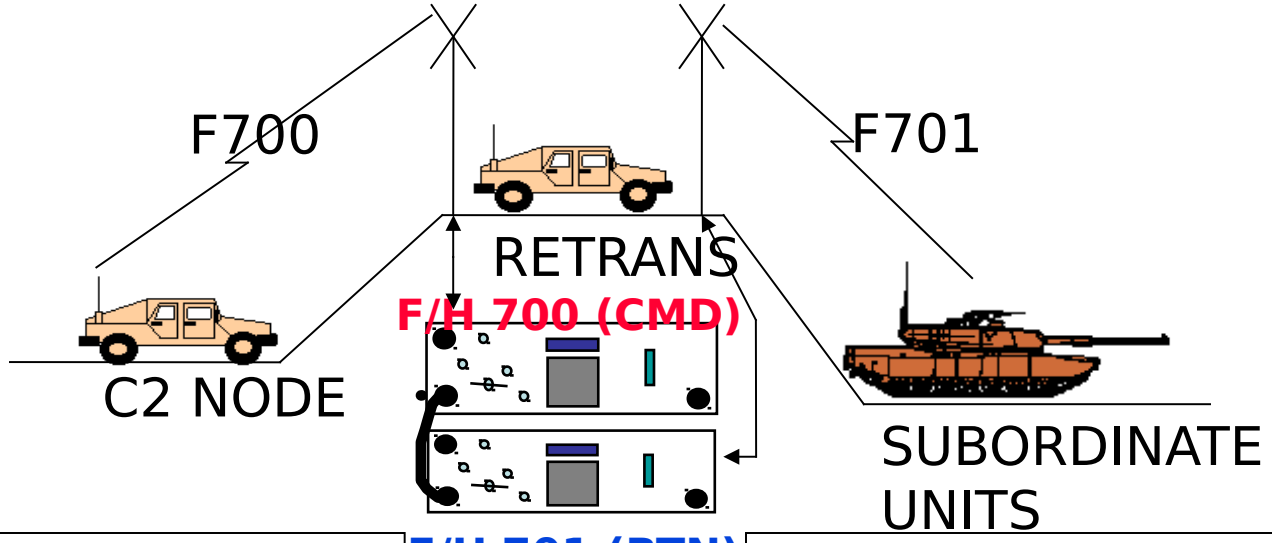


Build Effective Triggers for your C2 Nodes to Support your Scheme of Maneuver.

TRENDS – RETRANS

- Administrative vs. Tactical
- What do we expect the RETRANS to do?
- Do we conduct terrain analysis for our RETRANS positions?
- Do they properly utilize terrain?
- What do triggers do for us?
- RETRANS Security?
- Understand mission, graphics, and SA

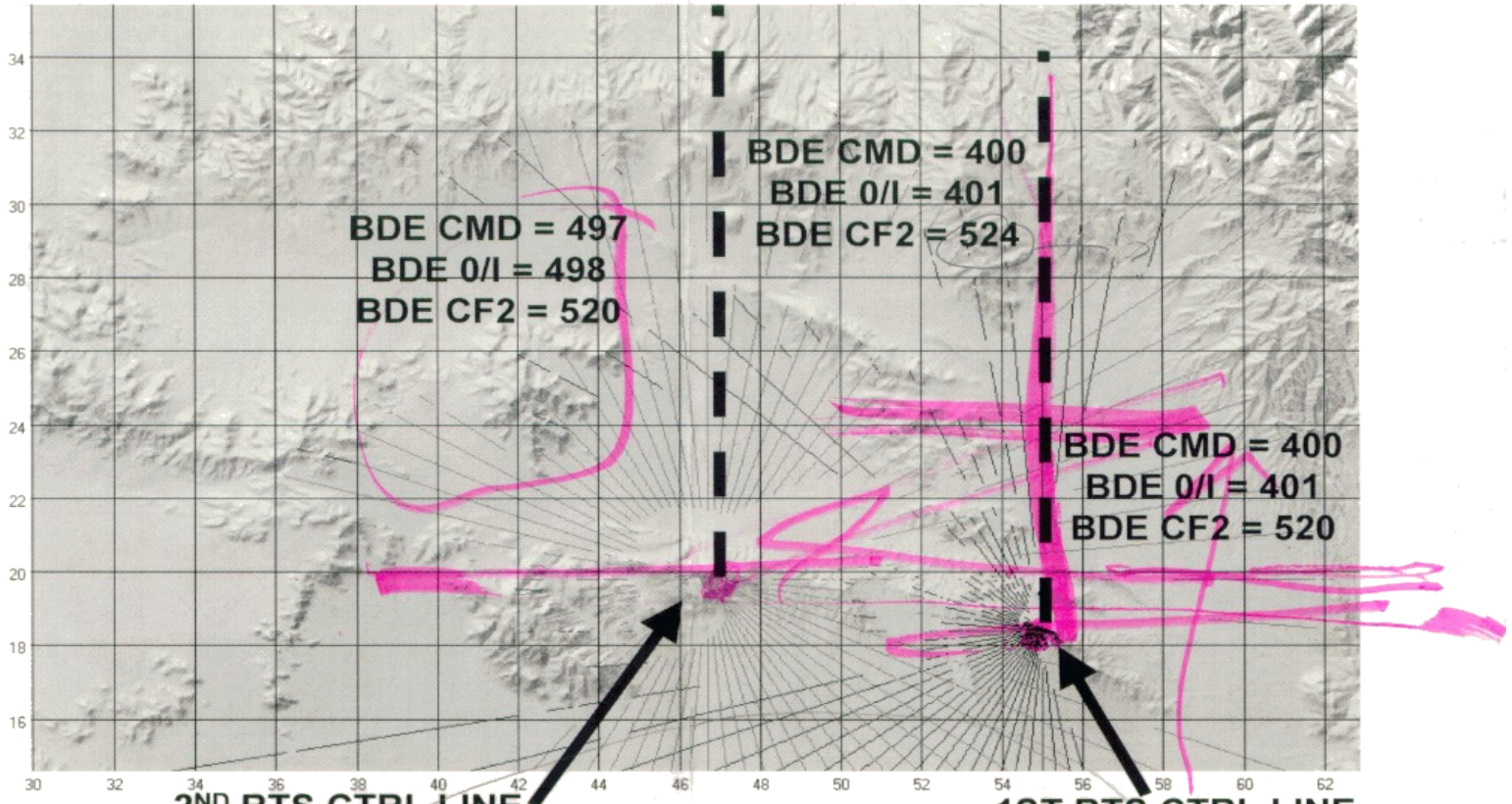
RETRANS OPERATIONS



Planning requirements:
-tactical situation,
-Terrabase Line Of Site (LOS) requirements,
-triggers,
-frequencies,
-distribution of the plan.

What must be done:
- COMMEX
- Comms checks,
- Know what actions are taken if RETRANS fails,
- Know what actions are taken if there is a loss of comms,
- Plan if there is a

RETRANS OVERLAY MAP


BDE CMD = 497
BDE 0/I = 498
BDE CF2 = 520
BDE CMD = 400
BDE 0/I = 401
BDE CF2 = 524
BDE CMD = 400
BDE 0/I = 401
BDE CF2 = 520
2ND RTS CTRL LINE
IS THE 47 N-S GRIDLINE
1ST RTS CTRL LINE
IS THE 55 N-S GRIDLINE

CMD O/I → As you move east to west, BDE CMD (400) and BDE O/I (401) do not change until RTS CTRL Line 2. Units must change to BDE CMD RTS (497) and BDE O/I (498) when they cross the 47 gridline.

CF2 → As units move east to west, BDE CF2 (520) changes to BDE CF2 RTS (524) as RTS CTRL Line 1, 55 Gridline, is crossed. Units must change back to BDE CF2 (497) as they cross the 47 gridline, RTS CTRL Line #2.

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WHAT HAPPENED TO THE RETRANS SITE SECURITY PLAN?

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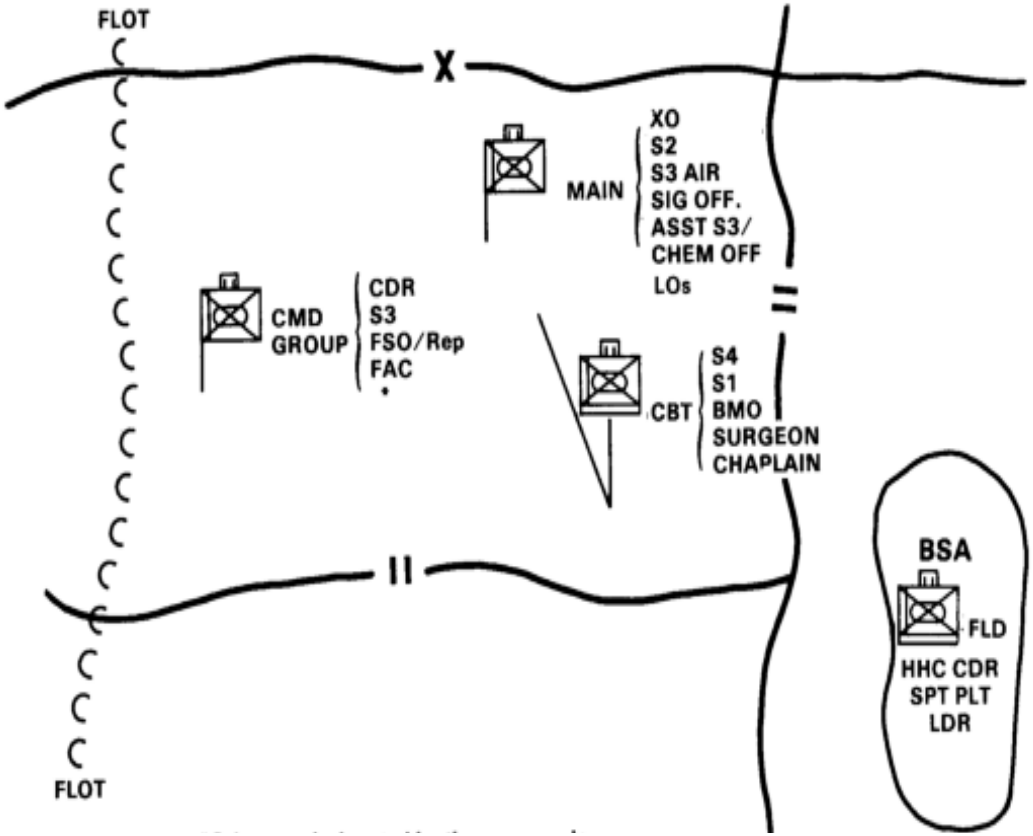
TRENDS
Echeloning C2 Nodes

- What is our role in the echelonment of our C2 nodes?
- How do we move our C2 facilities and still maintain Situational Awareness?
- What makes up the JumpTOC and TAC?
- How is the JumpTOC placed into operation?

ECHELONMENT OF C2 NODES

- **Integrate C2 node movement with scheme of maneuver**
- **Use backward planning to determine trigger for Jump TOC or TAC**
- **Upon establishment of TAC, the TOC relinquishes control and executes tactical movement**
- **Initiate C2 node bounding in order to maintain continuous situational awareness**



FM 71-2

Transfer C2 of TOC prior to movement and identify how subordinates will know.

FM 11-43

ECHELONING C2 NODES

A Technique:

How do we control the battle during the jump? Who is available to control the fight? What are the minimum requirements that the jump TOC must maintain? What are the other considerations?

WHO	WHAT	CONSIDERATIONS
XO	Tracking charts	Limited Visibility
S2	Communications	Enemy Situation
FSO/FSNCO	Command Net	Next Critical Event
ENG	Fires Net	
BTL CPT/NCO	O/I	
	Higher Nets	

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Are there others who can assist? What else needs to be

TRENDS – Commo Chief

- What is the role of the senior NCO during RSOI, while we are building combat power?
- What role does the senior NCO play, what role do all your NCOs play?
- How does the senior NCO help the S6 during MDMP?

COMMO PLATOONS AND SECTIONS

- Deployment Checklist
- Building Communications Combat Power (RSOI)
- Security of RETRANS site
- Role of the Commo Chief
- Communications Tasks

RSOI OPERATIONS

Sustain:

- **Signal Support to BCT during RSOI (MSRT, EPLRS, etc.)**
- **SWITCHEX Operations**
- **RSOI Network Installation and Maintenance**
- **Concurrent execution of tasks**
- **Planning process for first mission**

Improve:

- **Time Management**
- **Company Command Post Operations during RSOI**
- **Combat Power Tracking**
- **Integration into BCT Combat Power Building Operations**
- **Tactical PCC/PCI (NBC, Weapons Cleaning Kits, etc.)**

SIGNAL COMBAT POWER

BCT C2 CAPABILITY

	FM			IHFR			SC TACSAT			MTACSAT			IRIDIUM			DNVT			MSRT		
UNIT	AUTH	OH	RMC	AUTH	OH	RMC	AUTH	OH	RMC	AUTH	OH	RMC	AUTH	OH	RMC	AUTH	OH	RMC	AUTH	OH	RMC
HHC 1ST BDE	31	38	38	1	1	0	5	2	0				0	5	5	9	9	0	6	6	0
1-1 CAV	38	36	37				4	4	0										1	1	0
1 IN		276	276	2	2	0										1	1	0	2	2	0
1 AR				1	1	0										1	1	0	2	1	0
1 FA				1	1	0	1	1	0							1	1	0	2	1	0
1 EN	158	158	158	1	1	0										4	4	0			
1 LT IN				1	1		2	2	0							2	2	0	2	2	0
1 MAINT				1	1	0															
1 ADA	52	52	52	1	0	0										2	2		1	1	0
FSE																			3	2	0
MSE																			3	3	0
DIVMC																					
MI	32	32	32				1	1	0							1	1	0	5	5	0
SIG																			3	3	0
CHEM																					
ARCOS																					
MP	14	14	14																		
CA	5	5	5																		
LSTAB	3	3	3																		
FA																					
TOTAL	333	616	615	9	8	0	13	10	0	0	0	0	0	5	5	21	21	0	39	27	0
BCT %	100%			0%			0%						100%			0%			0%		

COMMEX CHECKLIST (CONDUCTED BY S3)

(GREEN=90-100%, AMBER=75-90%, RED=BELOW 75% OF AUTHORIZED, BLACK=NOT APPLI

UNITS	CMD NET	O/I NET	A/L NET	MSRT	CF1	CF2	AFATDS	TACSAT	DNVTS	TAC FAX	TAC Blast		
A MECH	O	O	O	O	O	O	O	O	O	O	O		
B TANK	O	O	O	O	O	O	O	O	O	O	O		
C TANK	O	O	O	O	O	O	O	O	O	O	O		
SCTS	O	O	O	O	O	O	O	O	O	O	O		
MTRS	O	O	O	O	O	O	O	O	O	O	O		
TOC	O	O	O	O	O	O	O	O	O	O	O		
CTCP	O	O	O	O	O	O	O	O	O	O	O		
FTCP	O	O	O	O	O	O	O	O	O	O	O		
RTS 1	O	O	O	O	O	O	O	O	O	O	O		
RTS 2	O	O	O	O	O	O	O	O	O	O	O		

COMMEX checklist

COMMO CHIEF UTILIZATION

Skill Level 4

Subject Area 12: Combat Communications Planning

- 113-611-6002 Plan FM Voice and Data Communications Net
- 113-611-6003 Plan a Tactical Local Area Network (LAN)/Wide Area Network (WAN) for Brigade and Below
- 113-611-6004 Plan a Single-Channel Tactical Satellite Communications Network
- 113-611-6005 Plan an HF Communications Network
- 113-611-6112 Prepare Input to Signal Annex (Paragraph 5) of the OPORD

STP 11-31U14-SM-TG

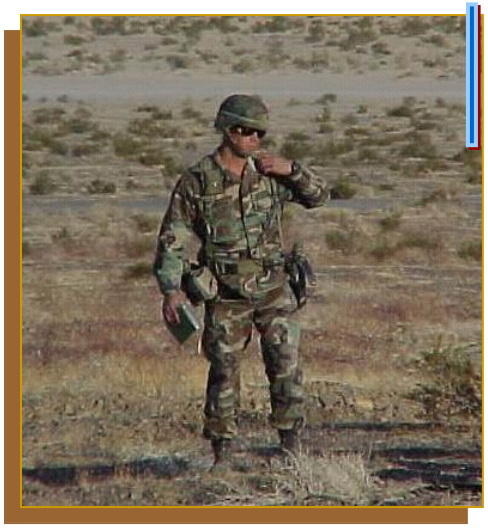
SUMMARY

- What is the purpose of the NTC?
- How do we, as OCs, help accomplish the mission?
- Trends/Lessons Learned
  - MDMP
  - Signal Annex
  - Triggers
  - RETRANS
  - Echeloning C2 Nodes
  - Commo Chief Utilization

QUESTIONS

CONCLUSION

THE BEST RESOURCED TRAINING EVENT IN THE UNITED STATES ARMY.



Train the Force!

UNCLASSIFIED

POCs - SIGNAL TRAINERS

O/C TRAINER	E-MAIL/DSN TELE
Bronco 30: MAJ Ko **Sr Signal Trainer**	**bronco30@/470-5536**
Bronco 30A: MAJ Murdock **MSE Co Trainer**	**bronco30a@/470-5536**
Wolf 30: CPT Bryan **FA S6 Trainer**	**wolf30@/470- 6962**
Cobra 30: CPT Bliss **Armor TF S6 Trainer**	**cobra30@/470-6497**
Scorpion 30: CPT McKinnis **Mech TF S6 Trainer**	**scorp30@/470-6627**
Tarantula 30: CPT Turinetti **Light Inf S6 Trainer**	**tarant30@/470-3052**
Eagle 30: CPT Ramirez **Aviation S6 Trainer**	**eagle30@/470-4415**
Lizard 30: MAJ Ginn **Div G6**	**lizard30@/470-5870**

DSN: 470-XXXX Commercial: (760)380-XXXX On Post: 4-XXX

E-mail extension: @irwin.army.mil